

## CLAIMS

1. A method for realizing information prompt semiconductor storage, comprising the steps of:

5 A. setting up a semiconductor storage apparatus, which uses a semiconductor storage medium module (3) to control a controller module (1) and an interface module (2) of the semiconductor storage apparatus; characterized by the following steps of

B. providing an information prompt module (5) in the semiconductor storage apparatus;

C. the information prompt module (5) acquiring the information from the outside of the semiconductor storage apparatus and/or from the apparatus itself; and

10 D. the information prompt module (5) prompting the acquired information.

2. The method of claim 1, characterized in that the information prompt uses a liquid crystal display, an array of light emitting diodes, flat field emission display and/or organic-electroluminescence (OEL) to display the character and/or the pattern, and/or uses  
15 a speaker, buzzer and/or crystal acoustic generator as an acoustic prompt, and/or uses the vibrator as a vibration prompt.

3. The method of claim 1, characterized in that the information described in steps C or D refers to static information and/or dynamic information, wherein the static information refers  
20 to the user's information, device information and storage information or one of the aforesaid three kinds of information.

4. The method of claim 3, characterized in that the static information refers to manufacturer information, user's name, user's code, user's password, product type, product serial  
25 number, product barcode, description of the storage content, the total storage capacity of the semiconductor storage apparatus, the number of the storage media, the storage capacity of each storage medium, and/or manufacturer of the storage media; and the dynamic information refers to the read-write state of the device, the property of accessed file, used space, free space, write protection state, current property of working disk,  
30 temperature, humidity, index of noise, date, time, and/or index of air.

5. The method of claim 1, characterized in that a prompt information storage region is provided in the semiconductor storage apparatus, and the storage region is used to store the prompt information.

6. The method of claim 5, characterized in that the prompt information storage region can be provided in the semiconductor storage medium module (3), the information prompt module (5) and/or the controller module (1).

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7. The method of claim 2, characterized in that the display of character and/or pattern can be the dynamic display and/or the static display.

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8. The method of claim 1 or 2, characterized by further comprising a manual control component for setting up the information prompt, wherein the component is used to perform the manual control of the information prompt.

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9. The method of claim 1, characterized in that a power source module (4) is provided in the semiconductor storage apparatus, wherein the power source module (4) obtains the power supply from outside and/or from a self-contained power source.

10. The method of claim 9, characterized in that a power source control switch is provided in a self-contained power source.

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11. The method of claim 9, characterized in that the self-contained power source may be a PV cell, a primary cell and/or a rechargeable cell.

12. The method of claim 9, characterized in that the power source module (4) is provided with a conversion circuit to charge the self-contained rechargeable cell.

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13. The method of claim 1, characterized in that the information content and/or the operation mode of the information prompt module (5) can be defined and modified by the software running in a data processing system host.

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14. The method of claim 1, characterized in that the medium used by the storage medium is a flash memory, DRAM, EEPROM, SRAM, FRAM, MRAM and/or Millipede; the interface module (2) is a USB interface, IEEE1394 interface, Bluetooth interface, IrDA infrared interface, HomeRF interface, IEEE802.11a interface, IEEE802.11b interface, wire wide area/local area network interface, and/or wireless wide area/local area network interface.

15. A semiconductor storage apparatus for realizing information prompt, comprising a controller module (1), an interface module (2) and a semiconductor storage medium module (3) each connected with the module (1) electrically, characterized by further comprising an information prompt module (5), wherein the information prompt module (5) comprises at least a display component, an acoustic component and/or a vibration component; the respective modules can be present individually, and can also be combined to one or more modules.

16. The semiconductor storage apparatus of claim 15, characterized in that the information prompt module (5) comprises a control module (51) and a prompt module (52), wherein the control module (51) controls the operation of the prompt module (52), or the information prompt module (5) only comprises the prompt module (52).

17. The semiconductor storage apparatus of claim 15, characterized in that the information prompt module (5) is connected with the controller module (1), the interface module (2) and/or the semiconductor storage medium module (3) electrically.

18. The semiconductor storage apparatus of claim 15, characterized in that the display component is a liquid crystal display, light-emitting diode matrix display, field emission display and/or organic-electroluminescence (OEL) display; and the acoustic generating component is a speaker, buzzer and/or crystal acoustic generator.

19. The semiconductor storage apparatus of claim 15, characterized by further comprising a power source module (4), wherein the power source module (4) comprises a voltage adapter circuit and/ or self-contained power source.

20. The semiconductor storage apparatus of claim 19, characterized in that a power source control switch is provided in a self-contained power source.

21. The semiconductor storage apparatus of claim 19, characterized in that the self-contained power source may be a PV cell, a primary cell and/or a rechargeable cell.

22. The semiconductor storage apparatus of claim 19, characterized in that the power

source module (4) is provided with a conversion circuit to charge the self-contained rechargeable cell.

23. The semiconductor storage apparatus of claim 15, characterized by further comprising  
5 a manual control component for setting the information prompt, wherein the component is used to perform the manual control of the information prompt.

24. The semiconductor storage apparatus of claim 15, characterized by further comprising  
10 a battery module (44) that is at least a battery cell (45) and contained in a cap (30) fit on a housing (20).

25. The semiconductor storage apparatus of claim 24, characterized in that the battery cell  
(45) is arranged into the cap (30) from a side inlet (31) with a side cover board (32) to cover  
and protect the inlet (31); one end of the cover (20) being provided with a USB or IEEE1394  
15 interface (23), and one end of the cap (30) provided with an interface (33) connected with  
the interface (23), a switch (50) connected in serial with the circuit from the battery cell (45)  
to the interface (33) to cut off or turn on the power supply.